

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-18 (Cancelled).

19. (Original) A method for treating and/or preventing liver injury, comprising administering to a patient in need thereof a low dose of IL-6, or a mutein, isoform, fused protein, functional derivative, active fraction, circularly permuted derivative or a salt thereof, optionally together with a pharmaceutically acceptable carrier.

20. (Original) The method according to claim, wherein the liver injury is liver cirrhosis.

21. (Original) The method according to claim 20, wherein the cirrhosis is compensated cirrhosis.

22. (Original) The method according to claim 20, wherein the cirrhosis is decompensated cirrhosis.

23. (Original) The method according to claim 20, wherein the method of treatment includes liver resection.

24. (Currently Amended) The method according to ~~anyone of claims 19 to 23~~ claim 19 wherein the dose is in the range of 0.1 to 10 mcg/kg weight.

25. (Currently Amended) The method according to ~~anyone of claims 19 to 23~~ claim 19, wherein the dose is about 0.1 mcg/kg or about 1 mcg/kg or about 10 mcg/kg.

Claims 26-27 (Cancelled).

28. (Currently Amended) The method according to ~~anyone of claims 19 to 27~~ claim 19, wherein the IL-6, or a mutein, isoform, fused protein, functional derivative, active fraction, circularly permutated derivative or a salt thereof is administered daily or administered once a week or administered three times per week.

Claims 29-30 (Cancelled).

31. (Currently Amended) The method according to ~~anyone of claims 19 to 27~~ claim 19, wherein the IL-6 is glycosylated at one or more sites.

32. (Currently Amended) The method according to ~~anyone of claims 19 to 27~~ claim 19, wherein the IL-6 is not glycosylated.

33. (Currently Amended) The method according to ~~anyone of claims 19 to 27~~ claim 19, wherein the fused protein comprises an immunoglobulin (Ig) fusion.

34. (Currently Amended) The method according to ~~anyone of claims 19 to 27~~ claim 19, wherein the fused protein comprises IL-6 and gp80 or a fragment thereof.

35. (Currently Amended) The method according to ~~anyone of claims 19 to 27~~ claim 19, wherein the functional derivative comprises at least one moiety attached to one or more functional groups which occur as one or more side chains on the amino acid residues.

36. (Original) The method according to claim 35, wherein the moiety is a polyethylene moiety.

37. (Original) The method according to claim 19, wherein a cell expressing an IL-6 or a mutein, isoform, fused protein, active fraction or circularly permuted derivative thereof is administered.

38. (Original) The method according to claim 19, wherein an expression vector comprising the coding sequence of an IL-6 or a mutein, isoform, fused protein, active fraction or circularly permuted derivative thereof is administered.

39. (Original) The method according to claim 38, wherein the vector is a lentiviral vector.

40. (Original) A method for treating and or preventing a liver cirrhosis including resection, comprising administering to a patient in need thereof an effective low dose of IL-6, a mutein, fused protein, active fraction or circularly permuted derivative thereof, or comprising administering to a patient in need thereof an expression vector comprising the coding sequence of IL-6 , a mutein, fused protein, active fraction or circularly permuted derivative thereof or a cell producing the same.

41. (Currently Amended) A method for treating or preventing a liver injury, comprising administering to a patient in need thereof an effective low dose of IL-6, or a mutein, fused protein, active fraction or circularly permuted derivative thereof, or comprising administering to a patient in need thereof ~~a low dose of IL6, or a mutein, fused protein, active fraction or circularly permuted derivative thereof or an~~ expression vector comprising the coding sequence of IL-6 , a mutein, fused protein, active fraction or circularly permuted derivative thereof.

42. (Original) The method of treatment according to claim 41, wherein the liver injury is liver cirrhosis.

43. (Currently Amended) The method of treatment according to ~~claims 41 or 42~~ claim 41, wherein the patient in need suffers from end stage liver insufficiency.

44. (Currently Amended) The method of treatment according to ~~claims 41 or 42~~ claim 41, wherein the patient in need suffers from liver insufficiency after resective liver surgery.

45. (Currently Amended) The method of treatment according to ~~claims 41 or 42~~ claim 41, wherein the patient in need suffers from acute liver insufficiency.

46. (Original) The method according to claim 41, wherein injury is caused by resection.

47. (Original) The method according to claim 46, wherein the patient in need is a transplantation donor.

48. (Currently Amended) The method according to ~~claims 46 or 47~~ claim 46, wherein the administration is carried out before during and/or after resection treatment.

49. (Currently Amended) The method according to anyone of ~~claims 41 to 48~~ claim 41, wherein the low dose administered is in the range of 0.1 to 10 mcg/kg weight.

50. (Currently Amended) The method according to ~~anyone of claims 41 to 49~~ claim 41, wherein the IL-6, or a mutein, isoform, fused protein, functional derivative, active fraction, circularly permuted derivative or a salt thereof is administered daily or administered three times per week or administered once a week.

Claims 51-52 (Cancelled).

53. (Original) The method of treatment according to claim 41, wherein the cirrhosis is severe.

54. (Original) The method of treatment according to claim 41, wherein the cirrhosis is acute.

55. (Original) A method for treating a liver injury followed by engraftment, comprising administering to a patient in need thereof an effective low dose of IL-6, a mutein, fused protein, active fraction or circularly permuted derivative thereof, or comprising administering to a patient in need thereof an expression vector comprising the coding sequence of IL-6, a mutein, fused protein, active fraction or circularly permuted derivative thereof.

56. (Original) The method of treatment according to claim 55, wherein the liver injury is liver cirrhosis.

57. (Original) The method of treatment according to claim 56, wherein the cirrhosis is severe.

58. (Original) The method of treatment according to claim 56 wherein the cirrhosis is acute.